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a pull-up transistor having a source coupled to a second voltage supply, a drain coupled to the source of said pass gate transistor, and a gate coupled to the output terminal of said inverter; and

a resistive element coupled between said first voltage supply and the gate of said pass gate transistor, the resistive element cooperating with a parasitic capacitor defined by the drain and gate of said pass gate transistor to increase the applied voltage to the gate of said pass gate transistor.

REMARKS

In the Office Action mailed June 20, 2000, claims 1-17, 19 and 20 (all claims) are rejected under 35 U.S.C. 103 as obvious in light of any one of Fox, U.S. Patent No. 3,579,023, Nelson, U.S. Patent No. 4,507,618, and GB 1,287,021.

All claims recite either a specific application of an electronic circuit configuration for the purpose of converting binary input signals with a first two levels to a binary output signal with a second two levels, or a process thereof.

Applicant has asserted that the cited prior art does not teach nor render obvious the claims because the claims recite a circuit coupled to receive and level shift digital signals and to deliver those digital signals. The Office Action disagrees that these represent structural limitations. In a prior response the claims were amended to include the circuits to which the terminals are coupled. Such limitations are clearly structural in

nature. However the Office Action now objects to the figures as not showing these circuits. These circuit limitations have been removed from the claims, as Applicant regards them as unnecessary in light of established case law and PTO examination guidelines.

The Office Action asserts that the claimed couplings are intended use recitations, and that intended use recitations cannot distinguish over the prior art when the structure is anticipated. Respectfully, this is contrary to established PTO examination practice, as set forth by MPEP 2111.02:

THE INTENDED USE MAY FURTHER LIMIT THE CLAIM IF IT DOES MORE THAN
MERELY STATE PURPOSE OR INTENDED USE

Intended use recitations and other types of functional language cannot be entirely disregarded. However, in apparatus, article, and composition claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); In re Otto, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963) (The claims were directed to a core member for hair curlers and a process of making a core member for hair curlers. Court held that the intended use of hair curling was of no significance to the structure and process of making.)

Respectfully, Applicant again wishes to point out to the Examiner that the cited prior art and the claimed invention are not structurally the same, nor are they even structurally similar. One comprises an RC attenuator, the other comprises a biased transistor with parasitic capacitance. The Examiner continues to assert that Applicant may not argue functional differences when the prior art shows the identical structure, but the Examiner continues to rely upon prior art with radically different structure. In other

words, the Examiner asserts that Applicant is really claiming an RC attenuator, despite the fact that the claimed circuit operates differently (using charge pumping), with a different effect (level shifting of a binary signal), using a different structure (a biased transistor). According to the MPEP:

Intended use recitations and other types of functional language cannot be entirely disregarded.

Hence both structural and functional limitations must be considered when interpreting the novelty of apparatus claims.

However, in apparatus, article, and composition claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art.

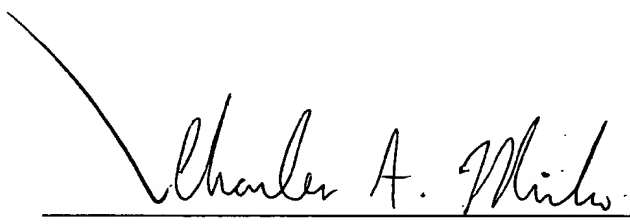
Applicant has clearly demonstrated, and it is facially apparent, that an RC attenuator has different structure than the claimed circuit. The RC attenuators taught by the cited references cannot perform the intended use of level shifting a binary signal using charge pumping. The claimed circuit utilizes a biased transistor with parasitic capacitance for this purpose. Thus, the structural differences (e.g. use of the biased transistor) arise from the intended use (e.g. level shifting a binary signal using charge pumping).

If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicant has demonstrated that the prior art RC attenuator is incapable of performing the intended use, namely, to provide level shifting of a binary signal by way of a pumping action as provided by the biased transistor. Thus it does not meet the claims. The claimed circuit comprises both a different function (e.g. pumping), and structural differences (e.g. the use of a biased transistor) arising from what the Examiner asserts is an intended use (the couplings to particular signal sources and sinks). In addition to asserting the "intended use" rejection is contrary to established PTO examination guidelines in this circumstance, Applicant respectfully repeats that "intended use" cannot be relied upon as a basis for rejecting process claims (for example, claim 15).

Having particularly pointed out the distinction between the cited references and the claims, allowance of all claims is respectfully requested.

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